

What is claimed is:

- Sub 2*
1. A sponge cloth which is based on cellulose and has been provided with an internal reinforcement, obtainable by the amine oxide process.
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2. The sponge cloth of claim 1, wherein the amine oxide used in the process is N-methylmorpholine N-oxide.
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3. The sponge cloth of claim 1 ~~or 2~~, wherein the internal reinforcement comprises cotton fibers, viscose fibers or a polymeric net.
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- Sub 3*
4. The sponge cloth of one or more of claims 1 to 3, including at least one plasticizer.
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5. The sponge cloth of one or more of claims 1 to 3, impregnated with a biocidally active agent.
- [Signature]*
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6. A process for producing a sponge cloth which is based on cellulose and has been provided with an internal reinforcement, which comprises
- a*
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- (a) providing a mixture which includes cellulose dissolved in the N-oxide of a tertiary amine and water and also at least one pore former and fibers, *but no blowing agent*
- (b) spreading the mixture onto a transportation belt,
- (c) passing the layer through a coagulation bath comprising a dilute aqueous amine oxide solution to dissolve out the pore former,
- (d) washing the remaining amine oxide out,
- (e) drying the sponge cloth web and
- (f) end-iteming it.
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7. A process for producing a sponge cloth which is based on cellulose and has an internal reinforcement, which comprises

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- (a) providing a mixture which includes cellulose dissolved in the N-oxide of a tertiary amine and water and also at least one pore former,
- (b) applying the mixture to both sides of a polymeric net,
- (c) passing the layer through a coagulation bath comprising a dilute aqueous amine oxide solution to dissolve out the pore former,
- (d) washing the remaining amine oxide out,
- (e) drying the sponge cloth layer and
- (f) end-iteming it.

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8. The process of claim 6 or 7, wherein the N-oxide of a tertiary amine is N-methylmorpholine N-oxide.

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9. The process of claim 6 or 7, wherein the coagulation bath comprises a 5 to 50% by weight aqueous amine oxide solution, preferably a 5 to 50% by weight aqueous NMMO solution.

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10. The process of claim 6, wherein the fibers fraction is 5 to 50% by weight, preferably 10 to 40% by weight, based on the dry weight of the sponge cloth.

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11. The process of claim 6 or 7, wherein the pore former is an alkali metal, alkaline earth metal or ammonium salt of an inorganic acid.

12. The process of claim 11, wherein the pore former is sodium sulfate or magnesium sulfate.

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sub A5

13. The process of claim 6 or 7, wherein the pore former fraction is 30 to 90% by weight, preferably 70 to 85% by weight, based on the total weight of the sponge cloth raw material.

5 14. The process of claim 6 or 7, wherein the cellulose fraction is 0.5 to 10.0% by weight, preferably 1.0 to 5.0% by weight, based on the total weight of the sponge cloth raw material.

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15. The process of claim 6 ~~or 7~~, wherein the mixture additionally includes at least one plasticizer and/or at least one biocidally active agent.

sub A6

16. The process of claim 6 or 7, wherein the plasticizer fraction is 1 to 15% by weight, preferably 2 to 10% by weight, based on the dry weight of the finished sponge cloth.

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